ABSTRACT

BACKGROUND

Organophosphorous poisoning is one of the most common suicidal poisonings in our country. Mortality is mainly due to respiratory failure. Cardiovascular collapse also can occur. Diagnosis is mainly based on clinical grounds. The morbidity and mortality depends on the time lag between the exposure and the onset of management. If we are able to recognize the high risk cases at the earliest and give them the proper treatment we can decrease the morbidity and mortality.

Study

To analyse the validity of Red Cell Distribution Width in prediction of severity and prognosis in acute organophosphorous poisoning.

Method

A single centre observational prospective study was conducted with a sample of 100 patients at Toxicology department, Rajiv Gandhi Government General Hospital, for a period of one year. Patients were classified according to Paradeniya Organophosphorous Poisoning scale and serum cholinesterase, red cell distribution width, red cell indices, total wbc count and platelet count were studied to predict the prognosis.

Results

In this study we have found out that Monocrotophos is associated with high death probability. Severe POP score is associated with poor prognosis.GCS <5 is associated with high mortality rate. Low AChE on day1 of less than 1100 is associated with high mortality rate. Higher RDW on the day of admission of mean 15 can be taken as poor prognostic marker. Red cell indices are not so accurate in predicting outcome.

Conclusion

Hence it is concluded that Red Cell Distribution Width can be used as a marker of poor prognosis in acute organophosphorous poisoning. RDW being a cheap and easily available investigation can be used to decrease the time lag in assessing the severity and thereby decreasing the morbidity and mortality.

KEYWORDS:

Organophosphorous Poisoning

Red Cell Distribution Width

Monocrotophos

Paradeniya Organophosphorous Poisoning Score